

Introduction

DB2 SQL for Java Developers

Introduction

Chapter 1:

Objectives

You will learn:

- SQL - Structured Query Language.
- SQL statements.
- Result sets.

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SQL - Structured Query Language: The Basics

- SQL is a relational database that establishes relationships between tables of data.
 - Each table is assigned a unique name to identify its collection of columns and rows.
 - Each row represents a record.
- The record contains fields that are identified by column names.
- Each column or field has specific attributes, such as data type and format.

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SQL Statements

- Basic SQL statements include methods for creating, manipulating and deleting tables:
 - Create a table consisting of rows and columns of data.
 - Insert records or rows into the table.
 - Update or modify records and data types in the table.
 - Select or query the database for data matching some prescribed criteria.
 - Delete records from the table.
 - Drop or delete the table in its entirety.

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SQL Statement

- All SQL statements include keywords that are used to define the operation being performed on the table.
- A semicolon (;) marks the end of a SQL statement.
 - SQL statements may include constraints that establish rule-sets for the data fields in a record.
- There are three primary constraints:
 - Unique
 - Specifies that no two records can have the same value in a particular field.
 - Not Null
 - Specifies that a particular field cannot be blank.
 - Primary Key
 - Specifies that each record should contain a unique identifier.

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SQL Statement

- Both table and column names must begin with a letter, their lengths may not exceed 30 characters and the name must not include any reserved words.
- Characters may include letters, numbers and underscores.

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The Result Set

- The result from a SQL query is stored in a result-set.
- Most database software systems allow navigation of the result set with programming functions.